

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for analyzing a biological sample from an African American woman for the presence of a polymorphism or mutation associated with breast cancer comprising the steps of:

- (a) obtaining the biological sample from an African American subject; [[and]]
- (b) analyzing the sample for the presence of an adenine to guanine transition at position 5217 in the *BRCA1* gene (5217 A>G)[[.]]; and
- (c) detecting the presence of a guanine at position 5217 of the *BRCA1* gene.

Claim 2 (previously presented): The method of claim 1, wherein the step (b) of analyzing the sample for the presence of an adenine to guanine transition at position 5217 in the *BRCA1* gene (5217 A>G) further comprises analyzing the sample for the presence of a cytosine to thymine transition at position 4959 in the *BRCA1* gene (4959C>T).

Claim 3 (withdrawn): The method of claim 1, further comprising analyzing the sample for the presence of a genetic polymorphism or mutation selected from the group consisting of 676C<A, 943ins10, 1010G>A, 062A>G, 1183A>G, 1186A>G, 1256T>G, 1625del5, 1680G>A, 1742insG, 1832del5, 2577A>G, 3450del5, 3537A>G, 3667A>G, 3719G>C, 3875del4, 3883insA, 3888delG, 3987A>T, 4009C>T, 4160delAG, 4476G>A, 4810T>C, 4932T>C, 5273G>T, 5296del4, 5472G>T, 5501G>T, IVS13+1G>A, IVS16+6T>C, IVS16-20A>G, IVS18+85delT, IVS22+5G>T, IVS22+8T>A, IVS22+8T>C, IVS22+68T>C, 3'UTR+36 C>G from *BRCA1*, and 203G>A, 459T>G, 1342C>A, 1536del4, 2016T>C, 2816insA, 3014T>C, 3034del4, 3188A>T, 4791G>A, 5932G>A, 6575A>G, 6696delTC,

6741C>G, 7245G>C, 7378C>A, 7470A>G, 7697T>C, 7795delCT, and 9862G>C from *BCRA2*.

Claim 4 (original): The method of claim 1, wherein the biological sample is a blood or tissue sample.

Claim 5 (previously presented): The method of claim 1, wherein the step (b) of analyzing the sample for the presence of adenine to guanine transition at position 5217 in the *BRCA1* gene comprises performing a polymerase chain reaction (PCR) step.

Claim 6 (previously presented): The method of claim 5, wherein the PCR amplifies a nucleic acid comprising the adenine to guanine transition at position 5217 in the *BRCA1* gene.

Claim 7 (previously presented): The method of claim 6, wherein the step (b) of analyzing the sample for the presence of the adenine to guanine transition at position 5217 in the *BRCA1* gene further comprises determining the nucleotide sequence of the nucleic acid comprising the adenine to guanine transition at position 5217 in the *BRCA1* gene.

Claim 8 (original): The method of claim 5, wherein the PCR is real time PCR.

Claim 9 (original): The method of claim 6, further comprising analyzing the nucleic acid by single-stranded conformational polymorphism analysis.

Claim 10 (canceled).